

CLAIMS

1. A by-pass tool (10) for incorporation in a drillstring to provide a large bore throughflow passage (30) for drillstring fluids and to permit retrieval of large objects downhole, when the tool is in an inactive drilling mode, and in which the tool is capable of being activated, upon launching of an activation dart (11) from the surface, to an active mode in which drillstring fluids can be diverted to a by-pass port, and in which the tool comprises:

a casing (31) defining a large bore throughflow passage (30);

a by-pass port (32) for diverting drillstring fluids when the tool is in the active mode; and,

an axially displaceable member (33) mounted for slidable movement within the casing (31) between blocking and release positions with respect to the by-pass port (32), said member (33) being movable to the release position upon activation of the tool by the dart (11);

in which the tool is capable of reverting to its inactive mode by return movement of the dart (11).

2. A tool according to claim 1, in which the axially displaceable member (33) is movable to the blocking position by wireline retrieval of the dart (11).

3. A tool according to claim 1 or 2, including a latch mechanism (20, 22) arranged to maintain the tool in its inactive drilling mode by restraining the axially displaceable member (33) against movement from its blocking position, said latch mechanism being unlatched upon activation of the tool by the dart (11).

4. A tool according to claim 3, in which the latch mechanism includes a laterally deformable collet (20) which engages with a top sub-sleeve (22) in the blocking position of the axially displaceable member (33), and which is allowed to move laterally outwardly, to allow the axially displaceable member (33) to move to the release position upon engagement of the dart (11) with the collet (20).

5. A tool according to claim 4, in which a spring retainer (21) forms part of the latch mechanism and defines a recess (36) to receive the collet (20) when the latter deforms outwardly, said retainer (21) being spring biased (23) to co-operate with the collet (20).

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7. A tool according to any one of claims 1 to 6, in combination with a surface launchable dart (11).

8. A tool according to claim 7 when appendant to claim 4, 5 or 6, in which the dart (11) has a profile (24) to engage a corresponding profile (25) on the collet (20).